

intermaxillaribus (satis mobilibus, nec tamen propter pedicellorum brevitatem protrahilibus) facto.

Os maxillare gracile paulo in f curvatum, angulum tantum oris attingens, nec sub aciem ossis præorbitalis recidens.

Dentes in ambitu oris stipati, breves curvati. Vomer et palatum edentati. Ossa pharyngis denticulata.

Oculi largiusculi, laterales.

Aperturæ cujusque paris *narium* invicem remotæ: anteriores minores in apice extremo rostri positæ.

Os præorbitale oblique flabelliforme, rostro brevius: ossa suborbitalia sequentia minima, *Gena* magna, nuda, inarmata.

Ossa operculi parva una cum membrana connectenti circumeuntique operculum modicum, triangulare conficientia. Os operculare proprium tripartitum, parte postica in apicibus quinque subspinosis divisa.

Apertura branchialis amplissima intra ramos maxillæ inferioris procedens. Membrana branchiostega lata, radiis sex gracilibus sustentata. Arcus branchiarum quatuor liberi et lamina una operculo adnata.

Corpus teres modo *Triglorum* in caudam gracilem sensim attenuatum, ventre tumido.

Cutis lævis, squamæ veræ nullæ. *Linea lateralis* versus finem ejus diffracta, ad basin pinnæ caudæ desinens, per totum cursum suum scutellis scabris armata. Scutelli pauci in linea media lateris sparsi.

Pinnæ ventrales ante pectorales positæ. Pinnæ verticales pinnas *Trigli* simulant. Pinnæ dorsales duæ: prior quarum alta, triangularis: radii pinnæ secundæ setacei, simpliciusculi. Radii pinnæ ani omnes articulati cum apicibus modo *Trachinorum* de membrana extantibus. Pinnæ pectorales majusculæ, rotundatæ, non pedicellatæ, radiis omnibus divisæ.

Papilla genitalis simplex, parva. Vesica aeris nulla. Ventriculus ovalis cum ramo brevi ascendenti. Intestinum convolutionem unam faciens dein rectum ad anum tendens. Cæca pylorica dua brevissima.

Channichthys rhinocerus, Rich. Species unica adhuc cognita. Statura sesquipedalis.

Rad.:—B. 6; D. 8|—35; A. 31; C. 11½; P. 21; V. 1|5.

LIII.—Description of a Genus of Chinese Fish. By JOHN RICHARDSON, M.D., F.R.S. &c.

Familia THERAPONINÆ.

Genus HAPALOGENYS, Richardson.

Ch. Gen.—*Corpus* altum, compressum, dorso acuto, squamis asperis undique tectum. *Linea lateralis* arcuata, continua.

Caput undique squamosum, regionibus arctis narium, labiis, oris posterioribus maxillarum, ac plicis inflexis membranæ branchiostegæ

exceptis. *Labium inferius*, ad mentum papillis teneris brevissimis dense villosum, inter quas in apice menti pori duo exigui et in ramo utroque maxillæ inferioris pori tres majores numerandi sunt. Fovea centralis sub mento nulla.

Præoperculum arcuatum, serratum. *Operculum* denticulis duobus vix inter squamas conspicuis armatum.

Dentes villosi, stipati, in serie extima supra et infra obesiores, nec tamen altiores : dentes canini nulli. *Palatum* læve, plicatum. *Pinna dorsi* ad basin fere bipartita, cum spina antica recumbenti. *Membrana branchiostega* radiis sex sustentata.

Spec. 1. *H. nitens*, Richardson, Zool. of Beagle, Fish. pl. 43. f. 1, 2.

2. *H. analis*, idem. pl. 43. f. 3.

This genus is founded upon specimens of two species brought from Canton by John Reeves, Esq., F.R.S., and presented by him to the British Museum. Mr. Reeves had coloured drawings made from the recent fish, copies of which exist in a volume of unpublished figures collected by General Hardwicke, also in the British Museum, and representations of both species are given in the 'Zoology of the Voyage of H.M.S. Sulphur' (plate 43).

Hapalogenys agrees with the Sciænoid genus *Lobotes* in the number of the gill-rays and tolerably closely in external aspect, but it may be distinguished by the rounded preoperculum and the arrangement of the pores on the chin. In the harshness of its finely toothed scales it differs from the true *Sciænidae*, and it can scarcely be separated from the group to which *Datnia* and *Nandus* belong. The presence or absence of vomerine and palatine teeth, when employed rigidly as a distinctive character of the Percoid and Sciænoid families, tends to separate genera agreeing closely in other parts of their structure. Cuvier himself has disregarded it in the arrangement of certain Percoids having fewer than seven gill-rays; and it may be as well to go somewhat farther, and to bring *Serranus* and its subgenera *Plectropoma*, *Mesoprion* and *DiaCOPE*, or the entire family of *Serranidae*, into a closer neighbourhood with *Hæmulon*, *Pristipoma* and *Diagramma*, instead of separating them by the interposition of the very dissimilar tribes of Trigloids and Cottoids. For the same reason, a group of Percoids having less than seven gill-rays, which includes *Therapon*, *Helotes*, *Dules*, *Datnia*, *Nandus* and some other genera, should be approximated to *Scolopsides*, *Lobotes* and *Hapalogenys*, all having a single dorsal and six gill-rays. To this group I have given the family name of *Theraponinae*. *Anoplus*, a genus recently published in the 'Fauna Japonica,' resembles *Hapalogenys* in the strength of its dorsal and anal spines and in general form, but it has still more of the Sparoid aspect than the latter. It has vomerine teeth, is destitute of pores on the jaw, and its scales are less rigid than those of *Hapalogenys*.

The designation of *Hapalogenys** was contrived to express the velvety softness of the chin and lower lip, which is made more conspicuous by contrast with the rigidly rough scales that cover the rest of the head. A greater development of the fine tender papillæ of the under lip produces the beards of *Pogonias*—a genus having seven gill-rays and no recumbent spine before the dorsal. The *Pogonias nigripinnis* however of the 'Fauna Japonica' has only six gill-rays, a recumbent spine, three pores on each limb of the lower jaw, and in fact stands in the same relation to *Hapalogenys* that *Pogonias* does to *Micropogon*, the relative development of the beards being the chief difference. The *Coius polota* of Buchanan-Hamilton and *Coius binotatus* of Gray are similar forms, but an actual examination of specimens is required to determine whether they ought to be referred, as in the 'Flora Japonica,' to *Anoplus* or to *Hapalogenys*.

The general form of *Hapalogenys* and its recumbent pre-dorsal spine show some analogy to the *Squamipennes*, and bring it near to *Scorpiis*, but the vertical fins are not so fully enveloped in scales, and the dentition removes it far from the *Chatodontidæ*.

LIV.—On a *Monstrosity of the Pistil in Primula vulgaris*. By CHARLES C. BABINGTON, M.A., F.L.S., F.G.S. &c.†

THE curious monstrosity represented by the annexed rude sketch has just been sent to me by Mr. J. H. Walton of St. Bees College in Cumberland. It occupies the place of the pistil, and may be described as follows:—Within the base of the corolla is situated a small fleshy cup, from the centre of which springs a cylindrical stem capped with another shallow fleshy cup with a wavy margin. An exposed conical placenta, covered with peltate ovules, is seated in the centre of the latter cup. Thus in place of the ovary is a cup-shaped body; and the capitate stigma is replaced by a naked fleshy ovary. Flowers of the usual form and structure were found upon the same root with two flowers possessing this curious organ. The other parts of the monstrous flower were not altered, the stamens retaining their ordinary position. It seems probable that this singular organ consists of two whorls of carpellary leaves instead of one, as is usual in *Primula*, and that the plant was not able to develop the inner whorl sufficiently to allow it to close over the ovules.



* From ἀπαλός, *mollis*, et γένυς, *mentum*.

† Read before the Botanical Society of Edinburgh, April 11, 1844.